# COMPLEX RECTAL FISTULAE—THEIR OPERATIVE MANAGEMENT*

REPORT OF CASES

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CASES of fistula in ano that have been subjected to operation from one to several times without cure are not infrequent. This is usually due to one or more of the following causes:

1. Failure to find the internal opening.
2. Failure to follow all tracts to their termini and to open or excise them.
3. Faulty after-treatment.

Ordinary fistulae which are not too extensive ought to be cured by one operation if proper technique and postoperative care are employed. It is my opinion that the more complex fistulae ought also to be cured with one operation, unless more than one internal opening exists with tracts running above the external sphincter. These extensive complex fistulae frequently demand considerable boldness on the part of the operator in the matter of sacrifice of tissue, but if fundamental principles are kept in mind and proper technique used, successful results will follow. Stereoscopic x-ray films, taken after the tracts have been thoroughly injected with lipiodol and oil, give the surgeon accurate advance information concerning the tracts to be sought and the extent of the operation.

Preoperative preparation is of especial importance in cases which require extensive dissection. The colon should be thoroughly emptied and a strict nonresidue diet given to insure no passage of feces for at least one week after operation. This can usually be attained by the following regimen:

Three days before operation two ounces of castor oil is given. After this is given, a strict nonresidue diet consisting of fruit juices, sugar, sugar of milk, jello, gelatin, fruit jellies, candy, coffee, tea, and consomme, approximating three thousand calories a day, can be given without difficulty. Copious colonic irrigations of plain water are given morning and evening on the day following the purge and the morning of the day preceding operation. After the last irrigation the camphorated tincture of opium is given in two-dram doses at nine, twelve, three, and six o'clock. This insures a quiet, empty colon, and with a continuation of the nonresidue diet the patient can be carried along for a week or more after operation without defecation.

I prefer to operate under spinal anesthesia preceded by six grains of sodium amytal administered an hour before the anesthetic.

Before any incision is made the tracts are injected with saturated solution of methylene blue. To insure injection of all the tracts a careful technique must be followed. I have found a small canula attached to a Luer syringe best for the purpose. A small strand of gauze is wound around the canula and pressed down against the skin while the assistant draws the skin outward with two Allis or Kocher forceps, one on either side of the fistulous opening, thereby allowing pressure enough with the gauze to prevent backward leakage without obliterating the lumen of the tract, thus insuring easy and complete staining of the entire tract. Other external openings are closed by pressure with gauze while the injection is being made. If during the operation it is found that any side tracts are not properly stained, bismuth paste is used to inject them.

In these complex fistulae of long standing there is usually a large amount of indurated tissue, and I much prefer excision to incision. All masses of indurated, inflamed tissue and scar tissue are usually best removed, for this tissue frequently contains tracts that may be overlooked, and more rapid and complete healing is secured if only normal tissue is left.

The dissection is done with the electrocautery in all of my fistula cases. The cautery has several advantages over the knife and scissors. There is less bleeding, the tracts may be more easily followed, and if the fistulae happen to be tuberculous, healing will follow as kindly as in those due to simple infections.

The wound is packed with gauze at the time of operation, but when this is removed on the third or fourth day no more packing is inserted. The entire tract is painted out daily with hexylresorcinol or mercurochrome, and a vaselined applicator passed through the tract from the rectum to avoid bridging.

Finding the internal opening; thoroughness in the removal of all tracts; removal of sufficient superficial tissue and skin; and proper postoperative care; these will insure success.

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CASE 1.—Miss D. O. Mexican woman, age twenty, with annular stricture of the rectum, one inch above the anorectal line; complex fistula in ano with eight external openings on the right buttock, one on the

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Fig. 1. Fig. 2 Fig. 3

Miss D. O. Fig. 1—Before operation. Fig. 2—After operation. Fig. 3—After healing. No recurrence in two years.

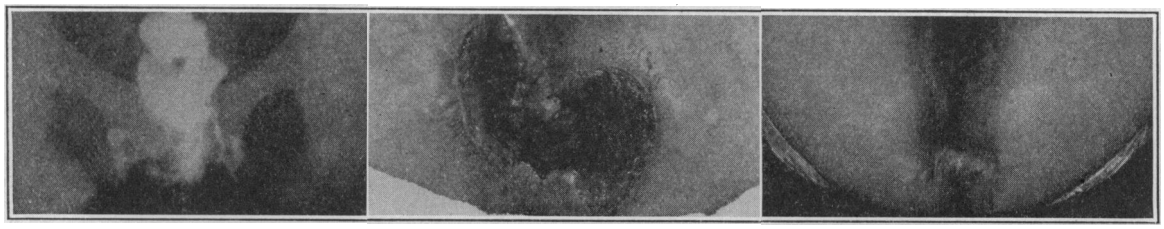

Fig. 4 Fig. 5 Fig. 6

Miss L. P. Fig. 4 shows the tracts injected with lipiodol. Fig. 5 shows the condition three weeks after operation, and Fig. 6 shows the comparatively small amount of scar after complete healing. No recurrence after eighteen months.

left and one over the sacrococcygeal joint; there were two posterior internal openings at the anorectal line, one tract passing under and one tract over the external sphincter. The stricture was incised in three places with the electrocautery and later treated with carbon dioxid snow, and still later by diathermy. The fistula was excised with the electrocautery. Figs. 1, 2, and 3 show this case before and after operation and after complete healing. No recurrence in two years.

case, all of which was excised with the electrocautery. Fig. 5 was taken three weeks after operation, and Fig. 6 shows the comparatively small amount of scar after complete healing. No recurrence after eighteen months.

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Case 3.—Mr. W. H. Age, forty. A tuberculous fistula in ano with extensive tuberculous skin lesion of both buttocks. Excision of fistulous tracts and skin with electrocautery. Complete healing. No recurrence after five years. Figs. 7, 8, and 9 show the condition before and after operation and after healing.

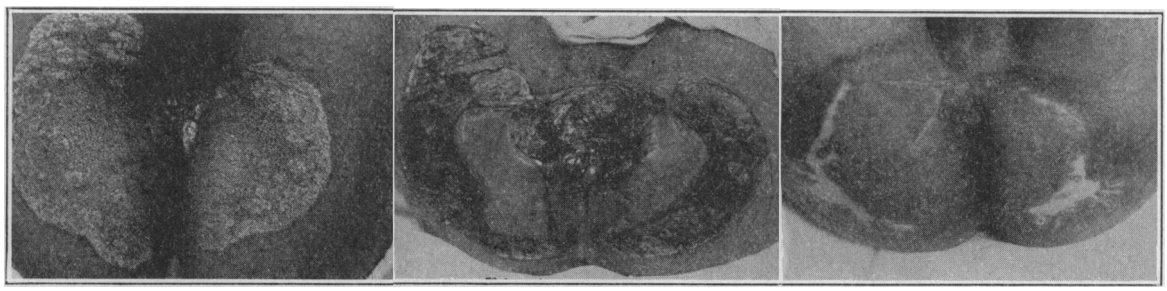

Fig. 7 Fig. 8 Fig. 9

Mr. W. H. Tuberculous fistula in ano with extensive tuberculous skin lesion of both buttocks. Figs. 7, 8, and 9 show the condition before and after operation and after complete healing. No recurrence after five years.

Case 2.—Miss L. P. Age, forty-three. A very extensive complex fistula in ano of twelve years' duration which had been operated upon elsewhere nine times. Fig. 4 shows the tracts injected with lipiodol. There were two external openings, one on either buttock, and one internal opening at the anorectal line, posterior. The tract on the left side ran up to the obturator foramen from which a side tract ran into the vagina; the tract on the right side ran up to the ramus of the pubes; a double tract ran from one external opening to the other, posterior to the anus. There was a great deal of dense scar tissue in this

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Case 4.—Mr. W. N. Age, fifty-two. Extensive fistula in ano of twenty years' duration with several external openings on the right buttock and two on the left; there was one posterior internal opening at the anorectal line. Fig. 10 shows the condition after excision of the tracts with the electrocautery, and Fig. 11 the condition after complete healing. No recurrence in one year.

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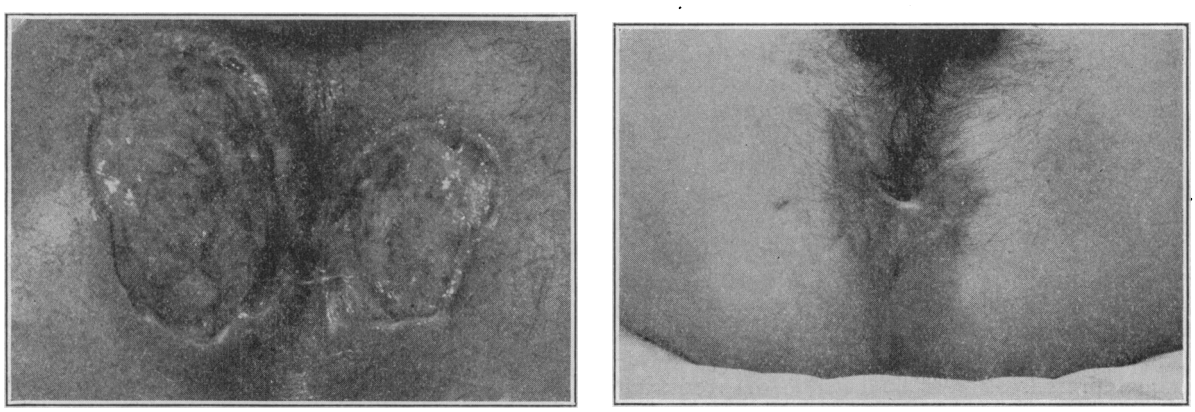

Fig. 10 Fig. 11

Mr. W. N. Extensive fistula with numerous external openings on both buttocks. Fig. 10 shows the condition after excision of the tracts. Fig. 11 shows complete healing. No recurrence in one year.